Valley Forge National Historical Park

2007 Transportation Scholar Report

Ross Geredien
October 2006 – April 2007

Table of Contents

Photo Credits:
Title Page: Huntington's Quarters in Autumn © Ross Geredien
Page 5: Admin Parking Lot/Loop Road Intersection before and after, © National Park Foundation; photo by Ross Geredien

1.0 Introduction

From October, 2006 through April, 2007, I had the opportunity to serve as a National Park Transportation Scholar at Valley Forge National Historical Park (VFNHP). Administered by the National Park Foundation, the National Transportation Scholars Program places transportation planning professionals in national parks for up to one year in order to work on transportation-related planning projects with the primary goal of improving transportation within the parks. In 2005-2006, a Transportation Scholar had begun planning for a pilot shuttle bus project at Valley Forge NHP. Based on a feasibility study by the Volpe Center for Transportation Research, the shuttle was intended to greatly enhance the visitor experience through reduced traffic congestion, noise, and air pollution. The primary project in line for the 2006-2007 Transportation Scholar at Valley Forge was to implement and evaluate this pilot project. The scholar would also serve in various capacities related to transportation and park planning.

This has been a truly exciting time to be at Valley Forge National Historical Park, as the park is now in the final stages of a comprehensive General Management Planning (GMP) process. As I write, many new changes are taking place at the park that will restore, enhance, and continue to preserve the park's historic, cultural, and natural resources. These changes will prepare VFNHP for future decades of protection well beyond the Park Service's Centennial Celebration in 2016.

I would like to thank the Ford Motor Company, the Eno Transportation Foundation, and National Park Foundation for their generous support in making this opportunity possible. I learned a great deal about park planning and operations, and although my time at Valley Forge NHP was relatively short in duration, the contributions made possible by this program will benefit many visitors in the year ahead. Many thanks also to the hard-working staff at Valley Forge for their hospitality and support: Chief of Planning and Resource Management, Deirdre Gibson, Superintendent Mike Caldwell, Kristina Heister, Jeff Kangas, David Moore, and everyone else who made my experience at Valley Forge both enjoyable and educational.

Ross Geredien, MEM
May 2007

2.0 Background and Context

As the site of the 1777-78 winter encampment of General George Washington's Continental Army, Valley Forge National Historical Park (VFNHP) protects many significant historic and cultural resources including cultural landscapes, buildings and structures, archeological sites, and archives and collections. Located only 20 miles from Philadelphia, VFNHP is surrounded by densely settled suburbs and major highway systems. As suburban sprawl increasingly covers the land around VFNHP, the park also becomes increasingly important both as a bio-refuge for over 1,000 species of plants and animals as well as a recreational and educational destination for well over one million visitors every year.

The urban context of the region creates a unique set of transportation issues for VFNHP compared to other parks of its size and profile. With 1.6 million visitors in 2005, VFNHP is a popular park even by national standards, and at a little over 3,400 acres, it is small compared to most other parks with similar visitation levels. The park has multiple points of entry including about a dozen road entrances and several non-motorized access trails. No single entrance station exists, although two one-way tour roads provide the major access to the park's primary monuments and tour destinations. Because of its "porous" nature with respect to human travel, the park is constantly inundated with traffic, particularly at peak rush-hour travel times, yet it receives no direct revenue through user fees. Thousands of commuters travel through the park daily via state highways, causing frequent traffic accidents and traffic violations. In addition, other problems such as illegal mountain-bike use on hiking trails are becoming increasingly widespread in the park, creating trail damage and user conflicts.

My familiarity with a variety of parks and protected areas around the U.S. enabled me to research some potential solutions to these issues and to apply my knowledge from different contexts in ways that could benefit VFNHP. In addition, I continued to plan and implement some of the ongoing projects which the previous scholar had undertaken, such as the park sign plan and the pilot shuttle project. I regularly met with local and regional partners in order to continue fostering cooperation on regional and local planning issues related to transportation. Finally, because I brought experience and expertise in ecology and natural resource management, I performed some additional work in support of the park's natural resource management efforts.

The following sections outline the work I performed while at VFNHP. First I will discuss the ongoing planning projects that were already in place and that I continued to develop into their implementation phase. Then I will describe several new research and planning projects to address transportation issues that crystallized as the result of the park's General Management Planning process, such as mountain-bike management issues and parking fee feasibility.

3.0 Existing Projects

3.1 Park Sign Plan

Signs are often the first opportunity to communicate a park's messages concerning rules and regulations, visitor services, and interpretive information. Hence clear and concise signs that are also visually pleasing are important tools for communicating many park messages. Signs at VFNHP have been a perennial challenge. Over 1,000 signs are found within the park, and yet many of these signs could be more effective in presenting accurate information clearly and aesthetically to the public. In busy areas, there are often too many signs posted, creating "sign pollution" that bombards the visitor with too much information and makes it difficult to decipher important messages.

In 2006, the previous Transportation Scholar had inventoried the park's signs using GPS to map their locations. The scholar also made recommendations for sign removal, cleaning, and/or replacement. The inventory and recommendations were drafted into a sign plan for the park, which I began to implement and expand upon. The park's Loop Road, which serves as the primary access to the Welcome Center area and is the main entrance to the park, was my primary focus since there were many problems in this area. For example, cars had often been seen driving onto the Joseph Plumb Martin Trail (JPMT) from the Administration parking area, and it was also fairly common to see cars turning the wrong direction on the one-way Loop Road despite the presence of "Do Not Enter" signs. Poorly placed as well as poorly worded or visually misleading signs were contributing to these problems (see Figure 3.1).

Figure 3.1) An example of unclear sign language and clutter.
Note the extraneous "Handicapped Parking" sign.

Senior staff pointed out that there were already numerous signs along the Loop Road, and if at all possible, the administration wanted to reduce sign clutter. Hence the primary goals became to 1) improve sign clarity; 2) reduce sign clutter. My first step was to review the sign plan and inventory, and then carefully examine the location, aspect, and language of each sign along the Loop Road. Some signs were in fact poorly worded and misleading and needed replacement. Other signs could be repositioned or angled differently for improved visibility; still others could be removed entirely because of redundancy or irrelevant information. I then compiled my findings and met with senior park staff as well as maintenance and law enforcement staff to discuss different alternatives. I produced three separate GIS maps of the Loop Road area showing existing sign conditions, proposed changes, and the final proposed outcome of the changes. GIS proved a valuable planning tool for this project; without GIS, it would have been extremely time-consuming and difficult to communicate the project's visual elements and to reach consensus among the different staff members. See Appendix A for copies of the GIS sign plan maps.

A total of five new information road signs were ordered. I worked closely with staff at the National Park Service's (NPS) Harper's Ferry Center (HFC) to have the new signs designed to the new NPS UniGuide standards and specifications. At the request of the superintendent, I had HFC design original cell phone and MP3-player logos on removable 10" x 12" placards that could be installed on the informational road signs using a sliding track system affixed to the sign face (See Figures 3.2a and 3.2b). Another placard was designed from a digital file of the park's Encampment Tour symbol. Adding these removable symbols to the informational signs will give the maintenance and planning staff a great deal of flexibility in the future as sign needs change while simultaneously creating an attractive and innovative look to the park's interpretive symbols. The use of MP3 (podcast) and cell phone tours at NPS units is very new, and to my knowledge, VFNHP will be one of the very first units to use these symbols in their informational signs.

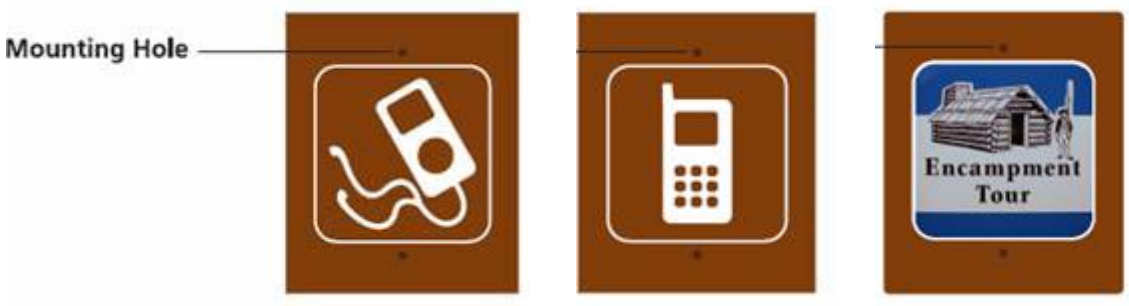


Figure 3.2a) 10" x 12" MP3, Cell Phone, and Encampment Tour placard symbols showing mounting holes

Figure 3.2b) Informational road sign showing removable placard track system

The Sign Plan includes several improvements to signage around the Administration parking lot. This lot is open to the public while at the same time provides the primary accessible parking for visitors as well as parking for tour buses and all business at the Administration Building and Welcome Center. Clear delineation of these diverse parking needs has proven challenging in recent years despite numerous parking signs in the lot. To address this issue, I had an informational sign designed that would clearly direct the flow of traffic to the appropriate parking area upon entering the lot (Figure 3.3).

Figure 3.3) New informational parking sign for the Administration parking lot

The Administration lot exit has been the site of repeated incidents involving traffic flow. Vehicles must exit the lot to the left onto the one-way Loop Road. Park staff members have frequently observed vehicles turning to the right against the one-way flow of traffic, and in several instances have also seen vehicles turn onto the adjacent paved pedestrian trail. Misleading signs along with a narrow grass median between the paved trail and the Loop Road all contribute to the confusion at this intersection (Figure 3.4a).

I concluded that the arrow graphic in the old sign misled visitors by indicating they should drive around the median and onto the paved pathway. Figure 3.4b shows one of the key changes made in which the "Keep Left" sign is replaced with a one-way directional arrow.

Sign clutter in the intersection also contributed to the confusion, and so several signs were planned for removal

Figure 3.4a) The misleading "Keep Left" sign at the Administrative Parking lot exit. Notice the paved pathway directly behind the sign.

including the encampment tour symbol, no longer necessary with the one-way directional sign. The "Do Not Enter" sign at the Amphitheater Road entrance across the intersection shown in Figure 3.4a will be removed after the construction of a new gate across this road's entrance, which is closed to the public.

Figure 3.4b) New one-way sign at the Admin Lot exit

In total, the Loop Road sign plan includes the removal of 12 extraneous signs; the replacement of one existing sign; the moving or repositioning of three signs; and the addition of five new signs. These changes will reduce sign clutter along the Loop Road, improve informational clarity, and enhance interpretive opportunities through the use of new interpretive symbol placards. For complete diagrammatic maps of the sign plan, see Appendix A.

3.2 Alternative Transportation Program (ATP) Pilot Project

In 2004, The Federal Transportation Administration's (FTA) Volpe Center for Transportation Research completed a feasibility study for alternative transportation at VFNHP. The study gave recommendations for an interpretive tour bus as well as for a transportation shuttle. The park now has motorized interpretive tours and is still in the planning stages of establishing a transportation shuttle. The park's General Management Plan calls for eventual closures of several of the park's roads to private vehicles. A shuttle bus program has significant potential to enhance the visitor experience at the park in conjunction with these road closures. Senior planning staff and I discussed how a shuttle would operate within the context of specific road closures. In order to close Outer Line Drive to traffic, a gate will be necessary. Shuttle buses will most likely have to have remote switches to gain access to the road without having to have a driver exit the vehicle to open gates. The closing of Gulph and County Line Roads will reduce through-trafic in the park, and an additional gate will be necessary at the Outer Line Drive crossing of Gulph Road.

Headways for the shuttle had already been calculated at 20 minutes, requiring 2-3 vehicles for daily operation. Six stops were established including the Welcome Center, Muhlenberg Brigade, Memorial Arch, Washington's Headquarters, Varnum's, and the Washington Memorial Chapel. I recommend one additional stop at Knox's Quarters, a popular recreational destination. A stop here will reduce the long distance between the Arch and Headquarters stops by nearly half and will provide shuttle access to a frequently used corner of the park.

In early winter, 2007 Deirdre Gibson and I applied for Federal Transit Administration Alternative Transportation in Parks and Public Lands (ATPPL) funding for the pilot shuttle program. A total of $168,000 was requested, which would include short-term funding to cover a 2-3 month pilot period of shuttle operation and evaluation. ATPPL awards are not expected to be made before July, 2007, and so VFNHP is still awaiting this decision before continuing forward with the pilot project. According to northeast regional staff, NPS Washington Office (WASO) is not looking favorably upon new shuttle programs, however, initial meetings during the funding process were positive. This is the second year the park has applied for ATPPL funding for the pilot project and the first year that the park has reached the final funding application round.

3.3 Missing Link Trail Funding Application

Another ongoing alternative transportation project is the so-called "Missing Link" in the Joseph Plumb Martin Trail (JPMT). The JPMT is a multi-use trail that circumnavigates VFNHP, and it is one of the most popular attractions at the park. A short segment of this trail between Knox's parking area and the Covered Bridge parking area remains unbuilt. Currently walkers, cyclists, and joggers must travel along a very busy state highway at a blind curve and intersection near the Covered Bridge. This is one of the most hazardous

roadways in the park, and several accidents have occurred here in the past including at least one involving a cyclist.

The missing link will entirely eliminate this road traverse and complete the circuit of the park's multi-use trail system. Instead of having to cross Valley Creek at the Covered Bridge, users will cross a new 10' x 100' pedestrian bridge, eliminating the need to walk along the roadway. The Missing Link will also eventually link the Valley Creek Trail, the Horseshoe Trail, and the JPMT with the neighboring Chester County trail system, thereby increasing incentives for alternative travel between the park and adjacent communities. See Appendix B for maps of the Missing Link Trail.

In February, 2007, I applied for ATPPL funding in the amount of $318,450 for the Missing Link project. This funding was previously budgeted to cover the cost of construction for the bridge and 718' of paved trail. Funding decisions for this project will also be made sometime during early- or mid-summer, 2007.

4.0 New Projects

4.1 Mountain Biking

VFNHP has for many years allowed bicycles to travel on its multi-use trails such as the JPMT and Schuylkill River Trail. These trails are open to pedestrians, X-C skiers, cyclists, and horses alike. The park also has numerous other footpaths that are open to equestrian users. Among these are several trails on Mt. Misery and Mt. Joy. These trails have historically been closed to bicyclists because of potential user conflicts and hazards between cyclists and other users. However, this policy has been very difficult to enforce because of the relative remoteness of these trails. As a result, many mountain-bikers have used these trails illegally over the years. When official announcements of the park's policies on mountain-bike usage were made during the General Management Planning process, mountain-bike users throughout the region were surprised. Many allegations were made that the park was "closing" its "mountain-bike" trails when in fact these trails have never been open to bicycles.

I was asked by the Chief of Planning and Resource Management to research mountain bike policies, management, enforcement, and use in the state, county, and city parks throughout southeastern Pennsylvania. This information would prove valuable in communicating the park's policies to mountain bike users in an informed manner. I contacted recreation managers at Chester and Montgomery County Park Commissions, Park Managers at Evansburg, French Creek, Marsh Creek, and Ridley Creek State Parks, as well as the Friends of Wissahickon and Fairmount Park in the city of Philadelphia.

The range of findings varied greatly. Some systems, such as Chester County Parks, have no mountain-bike use or management issues, whereas some state parks had adopted a very structured approach to policy, management, and enforcement. A few units even actively partner with mountain bike organizations or clubs, which participate in trail maintenance work days and educational outreach programs. Some units have had incidents of injury and even fatality related to mountain-biking and so have come to adopt strict enforcement policies often resulting in the elimination of virtually all mountain-bike violations and incidents.

4.2 Parking Fees

Valley Forge NHP has no entrance station, nor does it collect an entrance fee or any standard user fee from visitors. With multiple road entrances and access trails, it would be next to impossible to establish an entrance station that would be cost effective. Nonetheless, if a parking fee system could be implemented, the park could generate important revenue to cover operating expenses. I was asked to investigate fee operations

at national park units and other federally protected lands around the U.S to assess the feasibility of a parking fee system at VFNHP.

First I focused my research on any NPS units that collected fees strictly for parking. Then I examined general fee programs at units that had operational similarities to VFNHP, followed by USDA Forest Service fee sites in the northeast. I talked to representatives at four NPS units (Acadia National Park, Chiricahua National Monument, Olympic National Park, and Mount Rushmore National Memorial) and six National Forests (Green Mountain/Finger Lakes, Monongahela, White Mountain, Allegheny, and Chiquamegon-Nicolet) in total. At all units, I spoke with either senior staff in the ranger division, park business managers, or recreation planners.

The various fee programs are very diverse, but some programs proved to be very prototypal for a potential fee program at Valley Forge. In particular, the program at Acadia National Park was the most applicable to VFNHP, but several common elements for success prevailed among most of the programs. For example, many programs have made effective use of self-pay stations or "iron rangers". Another common theme was that of voluntary compliance, particularly in the early years of a fee program, with a "friendly reminder" approach to enforcement. But perhaps the most important element of the largest and most successful programs is the use of widespread informational campaigns prior to and during the initial stages of implementation. Public resistance would be a natural early reaction to any fee program where none has previously been in place, but with adequate information and public comment, all programs were well received within a period of about two years.

My primary conclusions from the research were that the park could:

- Collect a significant amount of user fee revenue at the Welcome Center, a practice that is common at several NPS units

- Make effective use of Self-pay stations or "Iron Rangers" at popular parking areas

- Partner with area hotels and cooperating nonprofits to collect fees, similar to programs at White Mountain National Forest and Acadia National Park.

- Adopt a parking tag system in which a bright hang-tag must be displayed on the rear view mirror at all times within the parking areas.

- Create incentives for local users to comply by offering an annual parking pass and even a December discount on annual passes.

- Focus on voluntary compliance by using friendly reminder cards on windshields as opposed to issuing citations, especially in the first three years of the program.

- Finally, utilize all local and regional media outlets and area partners to educate the public about the program including but not limited to the park's website, area

newspapers, local chambers of commerce, area hotels, local television stations, area radio stations such as WHYY public radio, the Valley Forge Convention Center and Visitors Bureau, and the Greater Valley Forge Transportation Management Authority (GVFTMA).

If all of these elements are adopted, a parking fee program at Valley Forge NHP could be very successful and could attain a level of 75% compliance, a figure cited by Acadia National Park business manager Kevin Langley as that park's target.

4.3 Miscellaneous Projects

2007 Revolutionary Run

The Park held its second annual Revolutionary Run on April 22, 2007. I submitted all required documents for this event's road closure permit to PennDOT Region 6. The procedure for this permit application is now streamlined, and it has been left with ranger Mike Valora, who will take the lead in applying for the 2008 permit. The event is one of the largest events at the year and draws a crowd of several thousand.

Thomas and Richards Road Stop Sign Warrants

The park is in the process of entering into a contract agreement with the Montessori Children's House of Valley Forge, Inc. to lease several park buildings near the intersection of Thomas and Richards Roads. The new Montessori school will most likely result in an increase in traffic in the area during certain drop-off and pick-up hours in the morning and afternoons. Area residents have expressed concern over the anticipated traffic increase and safety issues, citing a need for additional stop signs at the intersection. In order to address these concerns, I was asked to investigate the issue on behalf of the park and to document the traffic conditions of the intersection in cooperation with local township officials.

I met with Sergeant Anthony Giaimo of the Tredyffrin Township Traffic Safety Unit at the site to determine if additional stop signs were warranted. Under all FTA Manual on Uniform Traffic Control Devices (MUTCD) guidelines and regulations, only existing traffic conditions can be used for assessing whether an intersection meets the warrants for stop signs. These warrants include minimum traffic volumes, available corner sight distance, and traffic accident statistics at the intersection. With no accidents in the past three years, adequate site distance, and low traffic volume, the intersection does not meet any of the MUTCD stop sign warrants. As future conditions change, however, Tredyffrin Township and VFNHP will continue to monitor the intersection. Sergeant Giaimo drafted the findings in a memo to the park, documenting the township's assessment, with which I concurred.

Park Entrance Signs

In 2005 HFC had designed new entrance signs for VFNHP, but due to lack of funding the park was not able to proceed with the order. In 2007 funds to acquire the new signs became available. I worked in concert with HFC and Bunting Graphics, the sole source contractor for new signs, to finalize the details of this order. The park was able to obtain permission from the Northeast Regional Office (NERO) and from HFC to place the park's website address (URL) on the new entrance signs. As of this writing, the final layout with the URL's was still being developed. All order documentation and order information was left with the chief of planning and the business manager to proceed with this order.

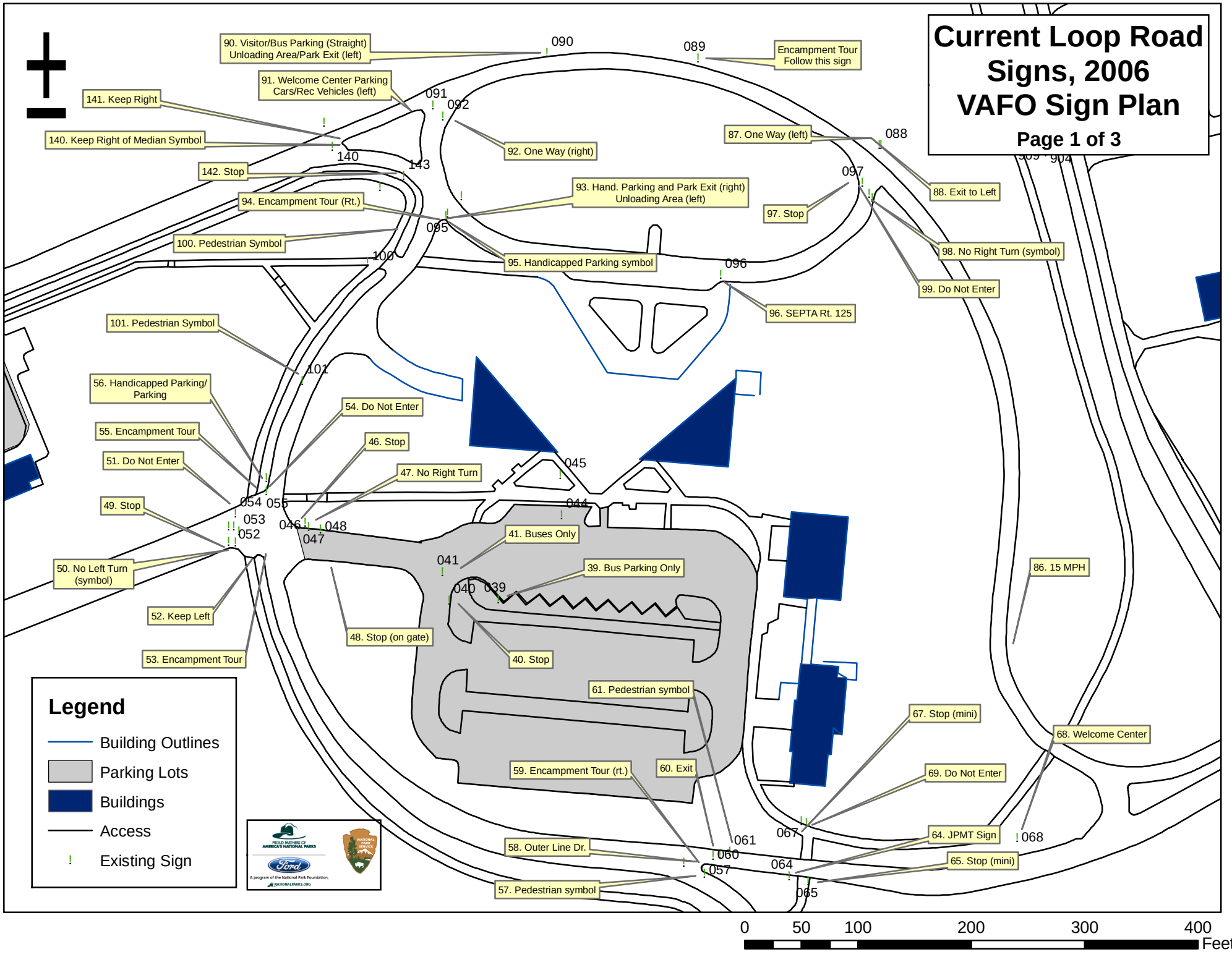
Natural Resource Management

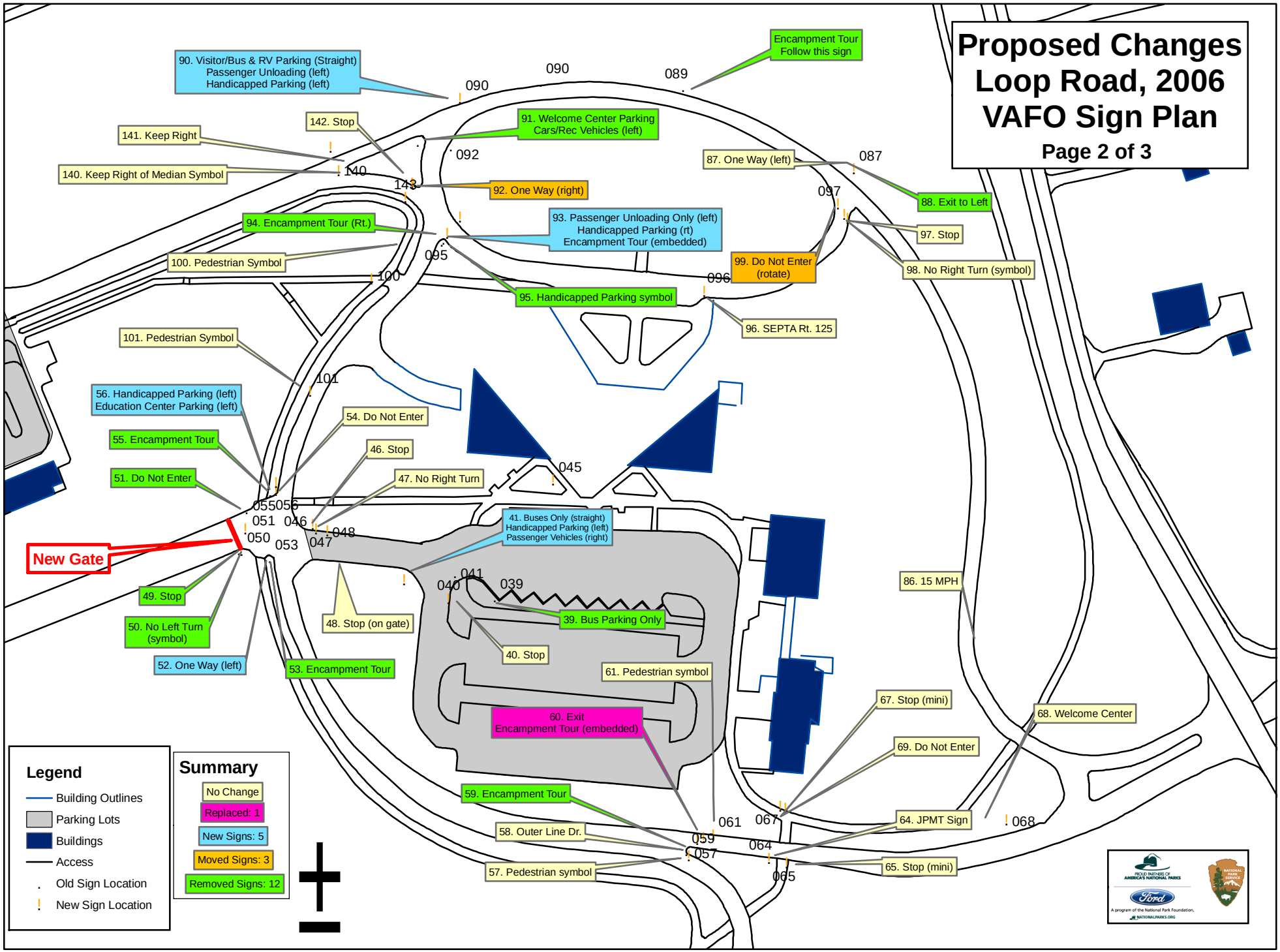
With several years of ecology and natural resource management experience, I was able to perform some additional work in support of the park's natural resource management program. My expertise in ornithology allowed me to perform a statistical analysis of Christmas Bird Count (CBC) and Spring Bird Count (SBC) data collected by volunteers between 1985 and 2006. The goals of the analysis were to assess any apparent population trends in target bird species and to assess the scientific rigor of the count methodology in use at the park. It was determined that some neo-tropical migrant species are in fact declining within the park, but causation of these declines could not be established from the data. It was also determined that several targeted grassland species are not being detected by the counts, a major concern with respect to the park's meadow management program. Finally, I concluded that more thorough and systematic point counts are necessary for avian monitoring in the park in order to improve the statistical rigor of monitoring data and to more accurately determine whether target species are breeding in the park.

The park is undergoing a major effort to develop a deer management plan and a comprehensive meadow management plan. These efforts are all part of the General Management Plan's goal of restoring much of the park's native ecosystems. In support of these restoration efforts, I researched grant funding opportunities for the park's Natural Resource Management team. I identified six grant programs that could be targeted for funding, all of which target watershed restoration, forest restoration, or invasive species management. I compiled my findings into a spreadsheet summarizing the various guidelines, requirements, and deadlines for each program.

Appendix A

Valley Forge Sign Plan Maps


Current Loop Road Signs, 2006
VAFO Sign Plan
Page 1 of 3
90. Visitor/Bus Parking (Straight) Unloading Area/Park Exit (left)
090
089
Encampment Tour Follow this sign
91. Welcome Center Parking Cars/Rec Vehicles (left)
091
092
141. Keep Right
140. Keep Right of Median Symbol
140
92. One Way (right)
87. One Way (left)
088
142. Stop
143
93. Hand. Parking and Park Exit (right) Unloading Area (left)
097
88. Exit to Left
94. Encampment Tour (Rt.)
095
97. Stop
100. Pedestrian Symbol
100
95. Handicapped Parking symbol
098. No Right Turn (symbol)
096
99. Do Not Enter
96. SEPTA Rt. 125
101. Pedestrian Symbol
101
56. Handicapped Parking/ Parking
54. Do Not Enter
55. Encampment Tour
46. Stop
51. Do Not Enter
47. No Right Turn
045
49. Stop
054
055
053
052
046
048
047
044
41. Buses Only
041
39. Bus Parking Only
040
039
50. No Left Turn (symbol)
52. Keep Left
48. Stop (on gate)
40. Stop
53. Encampment Tour
86. 15 MPH
61. Pedestrian symbol
67. Stop (mini)
68. Welcome Center
59. Encampment Tour (rt.)
60. Exit
69. Do Not Enter
061
067
064. JPMT Sign
068
58. Outer Line Dr.
060
065. Stop (mini)
057
064
057. Pedestrian symbol
065
Legend
Building Outlines
Parking Lots
Buildings
Access
Existing Sign
0
50
100
200
300
400
Feet


Proposed Changes
Loop Road, 2006
VAFO Sign Plan
Page 2 of 3
90. Visitor/Bus & RV Parking (Straight)
Passenger Unloading (left)
Handicapped Parking (left)
Encampment Tour
Follow this sign
142. Stop
91. Welcome Center Parking
Cars/Rec Vehicles (left)
141. Keep Right
140. Keep Right of Median Symbol
92. One Way (right)
87. One Way (left)
88. Exit to Left
94. Encampment Tour (Rt.)
93. Passenger Unloading Only (left)
Handicapped Parking (rt)
Encampment Tour (embedded)
97. Stop
100. Pedestrian Symbol
99. Do Not Enter
(rotate)
98. No Right Turn (symbol)
95. Handicapped Parking symbol
96. SEPTA Rt. 125
101. Pedestrian Symbol
56. Handicapped Parking (left)
Education Center Parking (left)
54. Do Not Enter
55. Encampment Tour
46. Stop
51. Do Not Enter
47. No Right Turn
New Gate
41. Buses Only (straight)
Handicapped Parking (left)
Passenger Vehicles (right)
49. Stop
48. Stop (on gate)
39. Bus Parking Only
50. No Left Turn
(symbol)
40. Stop
52. One Way (left)
53. Encampment Tour
61. Pedestrian symbol
86. 15 MPH
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60. Exit
Encampment Tour (embedded)
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64. JPMT Sign
58. Outer Line Dr.
65. Stop (mini)
57. Pedestrian symbol
Legend
Building Outlines
Parking Lots
Buildings
Access
Old Sign Location
New Sign Location
Summary
No Change
Replaced: 1
New Signs: 5
Moved Signs: 3
Removed Signs: 12
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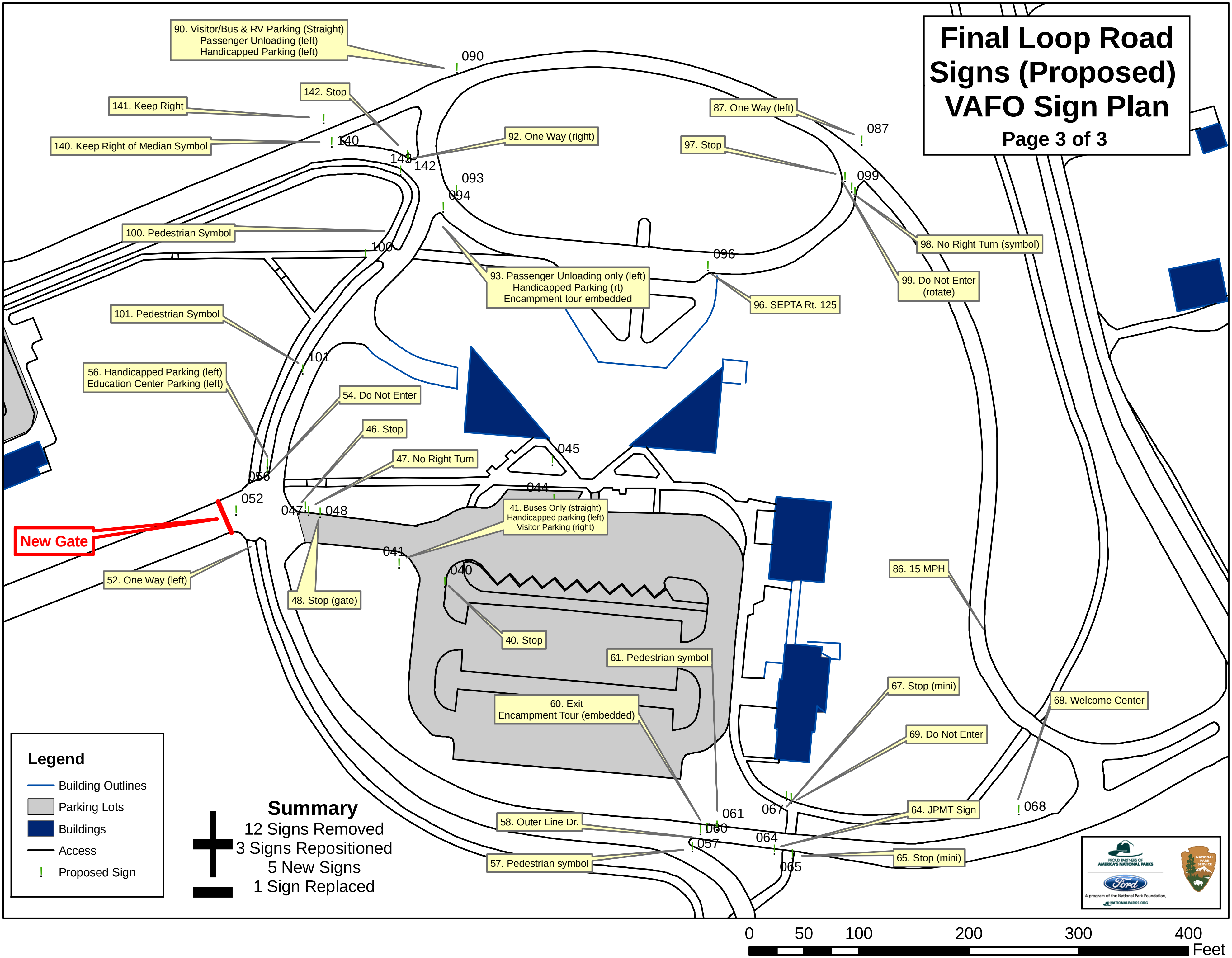
Feet


Final Loop Road Signs (Proposed) VAFO Sign Plan
Page 3 of 3
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97. Stop
100. Pedestrian Symbol
98. No Right Turn (symbol)
93. Passenger Unloading only (left) Handicapped Parking (rt) Encampment tour embedded
99. Do Not Enter (rotate)
96. SEPTA Rt. 125
101. Pedestrian Symbol
56. Handicapped Parking (left) Education Center Parking (left)
54. Do Not Enter
46. Stop
47. No Right Turn
41. Buses Only (straight) Handicapped parking (left) Visitor Parking (right)
New Gate
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48. Stop (gate)
86. 15 MPH
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67. Stop (mini)
68. Welcome Center
60. Exit Encampment Tour (embedded)
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58. Outer Line Dr.
57. Pedestrian symbol
65. Stop (mini)
090
087
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045
056
044
052
047
048
041
040
061
067
068
060
057
064
065
Legend
Building Outlines
Parking Lots
Buildings
Access
Proposed Sign
Summary
12 Signs Removed
3 Signs Repositioned
5 New Signs
1 Sign Replaced
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A program of the National Park Foundation.
NATIONALPARKS.ORG
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50
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Feet

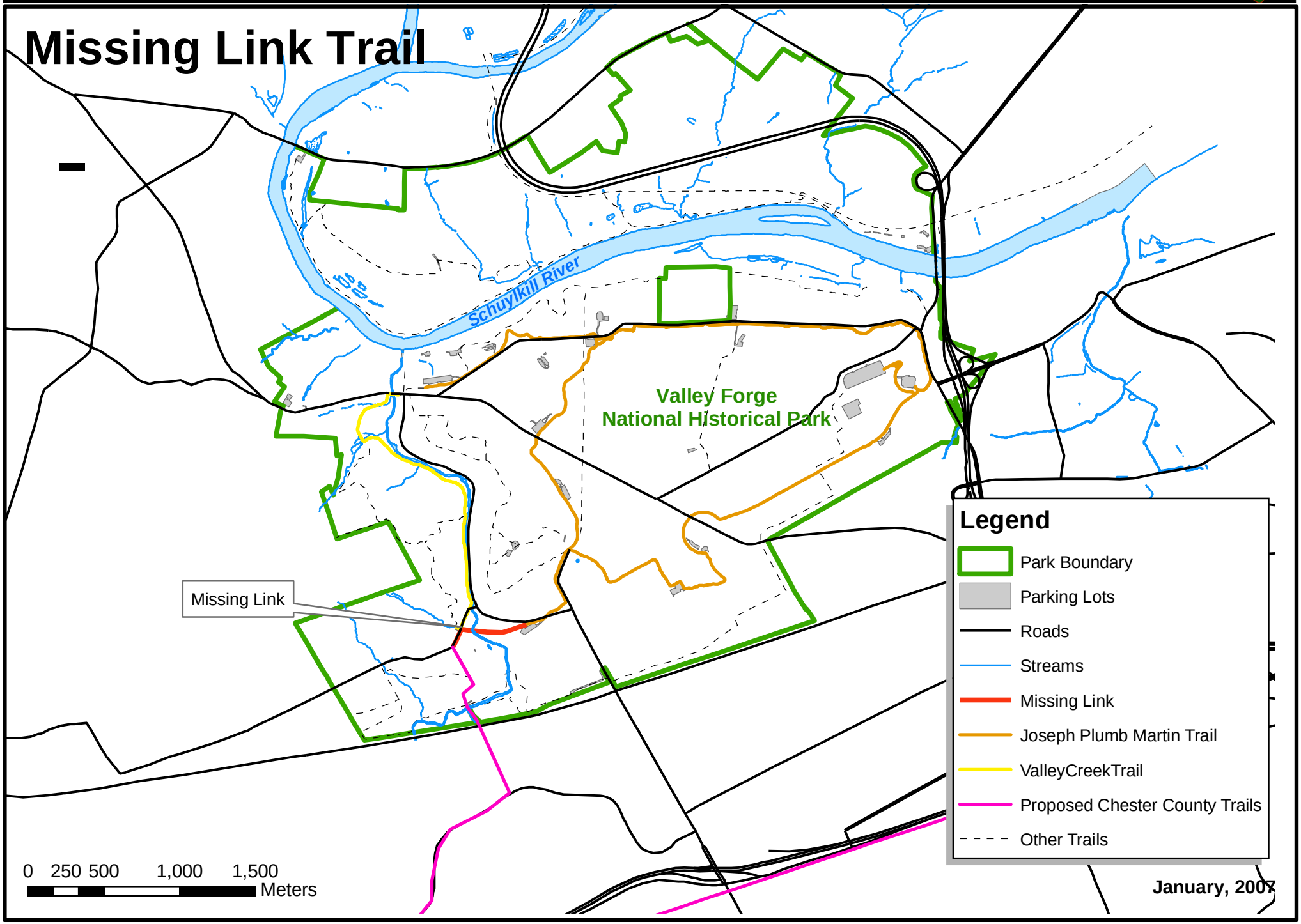
Appendix B

Missing Link Trail Maps

Valley Forge National Historical Park
Pennsylvania

National Park Service
U.S. Department of the Interior

Missing Link Trail



Valley Forge National Historical Park
Pennsylvania

National Park Service
U.S. Department of the Interior

Proposed Trail and Bridge